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THOMAS G. NEWMAN,
EDITOR.

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EDITORIAL BUZZINGS.

The Lesson of the Hour is: Next season order your supplies for the apiary early, and have them on hand, ready for use, long before they are needed.

E. L. Pratt, of Marlboro, Mass., writes: "The AMERICAN BEE JOURNAL turns in more orders than any other bee-paper. We have the largest honey-flow ever seen here."

E. L. Pratt is writing a book to be entitled, "My New Method of Securing Fancy Comb and Extracted Honey; and Queen Rearing." It will probably be born ere the commencement of another honey season.

Our Illustrated Home Journal is thus highly complimented by E. F. Nason, Editor and Publisher of "The Illustrated Companion," of New York City:

I must say that the ILLUSTRATED HOME JOURNAL is the best and most readable magazine, at the price, that we have among our exchanges; and when people find out that you publish such a really good magazine, I am sure that your subscription list will increase.

We club the ILLUSTRATED HOME JOURNAL (price \$1.00) with the AMERICAN BEE JOURNAL for one year for only \$1.60. You cannot afford to do without either—the one as an aid to practical bee-keeping, and the other as an invaluable literary and home periodical for the whole family.

Close Extracting is thus commented upon by a writer in the *Rural Canadian*:

July is the month when many bees are winter-killed. This may appear strange, but not so. With many the end of July brings the end of the honey season. Bee-keepers will take too much honey from their bees, and in winter they perish; this is careless and unwise.

Leave plenty in the combs; if you can, set aside some combs, and if you find later that you do not require it, there is no difficulty in extracting it; but it is a difficult, expensive, and tedious work to replace it in the combs after removing it.

You might as well work your horse to death, set a hen under more eggs than she can cover, and the like, as to extract too closely, and allow your bees to perish near spring for want of stores. Remember this, and your winter losses will decrease.

R. F. Holtermann, of Romney, Ont., writes us the following item, to correct a mistake that has been made by some. He says:

I have, in several places, seen it stated that I am Secretary of the Ontario Bee-Keepers' Association. It should have been *ex-Secretary*. I resigned that position, and for a number of years our good friend, Wm. Couse, of Streetsville, has filled the position; and so well has he filled it, that I believe no one has ever thought of a change.—R. F. HOLTERMANN.

Frank Leslie's Illustrated Newspaper for the week ending July 12, has a striking double-page picture of the House, Ways and Means Committee which formulated the McKinley Tariff Bill, and it gives, in connection therewith, an article from the pen of Prof. Van Buren Denslow, on the proposed tariff in South America. Prof. Denslow joins issue very decidedly with the scheme proposed by Secretary Blaine, and his article is sure to attract a large measure of public attention.

Our Politest Bow is given to the "Api" for complimentary words on page 105 of the July number. How much pleasanter is this, than to be pursuing one another with unkind and jealous remarks. There is plenty of room for all—and the reading apiarists will patronize those periodicals which are the most worthy of their patronage and esteem. The AMERICAN BEE JOURNAL is now prospering more than ever before, and hopes all other bee-periodicals are similarly situated.

The Proceedings of the Missouri State Bee-Keepers' Convention, held at Marshall, Mo., on April 16 and 17, 1890, are published in a neat pamphlet form, making 8 pages of essays and discussions. We presume that copies of it can be had by addressing the Secretary of the Association—Mr. J. W. Rouse, of Santa Fe, Mo.

Supply Dealers who desire to handle a good Bee-Veil, should write for our dozen rates on the "Globe" Bee-Veils, to sell again.

Another Wiley Dupe has been heard from—and this time from that progressive and exemplary State known as Iowa. Mr. O. S. Compton, of Glenwood, Mich., on July 7, 1890, wrote as follows, regarding a conversation with a resident of Sac City, Ia., about "artificial comb honey":

Here is another Wiley dupe—his name is A. Baxter, of Sac City, Iowa. He declared that W. Cheney, of that town, has a large factory devoted to the production of artificial comb honey; that he had witnessed the process with his own eyes; that Cheney shipped all his honey to a commission man in Chicago, and got 15 cents per pound, while genuine bees' honey sold for 18 cents; and that I had never been "around much" if I had never seen artificial honey. I offered him \$1,000 for a sample crate, but he said I could get a crate by sending a few dollars to Cheney. I wrote to W. Cheney, Sac City, Iowa, and asked him to name a price on a sample, if he had such, and enclosed find his reply to the same.

This little dialogue took place at Goshen, Ind., on May 20, 1890, while waiting to take a train for home. How I did wish for a reward card, such as Mr. Root sends out!

O. S. COMPTON.

In reply to Mr. Compton's letter, Mr. Cheney wrote thus:

I have just had the pleasure of receiving your letter, and in reply I will say that if A. Baxter told you what you say he did, he told you a lie! There is no factory here to make artificial comb honey, and no such honey is on the market. I am not the manager of any such concern; I have 123 colonies of bees in my home apiary, and have a lot more out on shares, and sell pure honey. WESLEY CHENEY.

In the above we have another illustration of the manner in which pure fabrications are proven to be such; and it also shows that those who pretend to any knowledge of the art of honey production (unless they be actual bee-keepers) know nothing about that which they presume to inform.

The only rational way to counteract such slanders of our sweet product, is to educate the people on the subject. To do that, there is no better method than by generously distributing the "Honey Almanacs" in every neighborhood throughout the country, and even among city people, whom bee-keepers desire to secure as regular customers. Try it, and see for yourself the great value of the Almanacs to those who judiciously use them. Prices on page 494.

Bees in a Church-Spire.—In the new *Epworth Herald* for July 12, 1890, published here in Chicago, we find the following account of a swarm of bees whose aspirations were unusually high, though bees have frequently been known to put on "pious appearances," which is quite appropriate when the sweetness of their labors is considered. Here is the item referred to:

In New Portland, Maine, a swarm of bees, evidently tired of being disturbed and robbed of their honey, have sought refuge in the top of a church-spire, the hollow space of which they are filling with sweets for their own benefit. Nobody can climb the steeple, and, consequently, those sagacious bees will no longer be plundered.

GLEAMS OF NEWS.

Adulteration of Food and Drugs.

In the Senate of the United States, June 3, 1890, Mr. Paddock, from the Committee on Agriculture and Forestry, reported the following Bill, which was read the first and second times, by unanimous consent :

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, for the purpose of protecting the commerce in food products and drugs between the several States and Territories of this Union and foreign countries, the Secretary of Agriculture shall organize in the Department of Agriculture a division to be known as the food division, and make necessary rules governing the same to carry out the provisions of this Act, and appoint a chief thereof, at a salary of \$3,000 per annum, whose duty it shall be to procure from time to time, under rules and regulations to be prescribed by the Secretary of Agriculture, and cause to be analyzed or examined samples of food and drugs sold or offered for sale in any State or Territory other than where manufactured. The Secretary of Agriculture is hereby authorized to employ such chemists, inspectors, clerks, laborers, and other employees as may be necessary to carry out the provisions of this act.

SECTION 2. That the introduction into any State or Territory from any other State or Territory or foreign country of any article of food or drugs which is adulterated within the meaning of this act is hereby prohibited, and any person who shall wilfully and knowingly ship or deliver for shipment from any State or Territory or foreign country to any other State or Territory, or who shall knowingly receive in any State or Territory from any other State or Territory or foreign country, or who, having so received, shall deliver, for pay or otherwise, or offer to deliver to any other person, any such article so adulterated within the meaning of this act, shall be guilty of a misdemeanor, and for such offense be fined not exceeding \$200 for the first offense, and for each subsequent offense not exceeding \$300, or be imprisoned not exceeding one year, or both, in the discretion of the court.

SEC. 3. That the chief of said food division shall make, or cause to be made, under rules and regulations to be prescribed by the Secretary of Agriculture, examinations of specimens of food and drugs which may be collected from time to time under rules and regulations to be prescribed by the Secretary of Agriculture under its direction in various parts of the country, and publish in bulletins the result of such analyses. But the names of manufacturers or venders of such foods or drugs analyzed shall in no case be published in such bulletins until after conviction in the courts of violation of this act. If it shall appear from such examination that any of the provisions of this act have been violated, the Secretary of Agriculture shall at once cause a report of the fact to be made to the proper United States District Attorney with a copy of the results of the analysis duly authenticated by the analyst under oath.

SEC. 4. That it shall be the duty of every District Attorney to whom the food division shall report any violation of this act, to cause proceedings to be commenced and prosecuted without delay for the fines and penalties in such case provided, unless, upon inquiry and examination, he shall decide that such proceedings cannot prob-

ably be sustained, in which case he shall report the facts to the food division.

SEC. 5. That the term "drug," as used in this act, shall include all medicines for internal or external use. The term "food," as used herein, shall include all articles used for food or drink by man, whether simple, mixed, or compound.

SEC. 6. That for the purpose of this act, an article shall be deemed to be adulterated.

In case of drugs :

1. If, when sold under or by a name recognized in the United States Pharmacopoeia, it differs within the knowledge of the seller from the standard of strength, quality, or purity, according to the tests laid down therein.

2. If, when sold under or by name not recognized in the United States Pharmacopoeia, but which is found in some other pharmacopoeia or other standard work on materia medica, it differs within the knowledge of the seller materially from the standard of strength, quality, or purity, according to the tests laid down in said work.

3. If its strength or purity fall below the professed standard under which it is sold.

In case of food or drink :

1. If any substance or substances has or have been knowingly mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength so that such product, when offered for sale, shall be calculated, and shall tend to deceive the purchaser.

2. If any inferior substance or substances has or have been knowingly substituted wholly or in part for the article, so that the product, when sold, shall be calculated and shall tend to deceive the purchaser.

3. If any valuable constituent of the article has been knowingly wholly or in part abstracted, so that the product, when sold, shall be calculated and shall tend to deceive the purchaser.

4. If it be an imitation of and knowingly sold under the specific name of another article.

5. If it be knowingly mixed, colored, powdered, or stained in any manner whereby damage is concealed, so that such product, when sold, shall be calculated to deceive the purchaser.

6. If it contain within the knowledge of the seller any added poisonous ingredient, or any ingredient which may render such article injurious to the health of the person consuming it.

7. If it consist within the knowledge of the seller of the whole or any part of a diseased, filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or of an animal that has died otherwise than by slaughter: *Provided*, That an article of food or drug which does not contain within the knowledge of the seller any added poisonous ingredient shall not be deemed to be adulterated.

1. In the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food under their own distinctive names, and not included in definition fourth of this section.

2. In the case of articles labeled, branded, or tagged so as to plainly indicate that they are mixtures, compounds, combinations, or blends.

3. When any matter or ingredient has been added to the food or drug because the same is required for the production or preparation thereof as an article of commerce in a state fit for carriage or consumption, and not fraudulently to increase the bulk, weight, or measure of the food or drug, or conceal the inferior quality thereof.

4. Where the food or drug is unavoidably mixed with some extraneous matter in the process of collection or preparation.

SEC. 7. That every person manufacturing, offering, or exposing for sale, or delivering to a purchaser any drug or article of food included in the provisions of this act shall furnish such drugs or article of food to any person interested or demanding the same, who shall apply to him for the purpose, and shall tender him its value of a sample sufficient for the analysis of any such article of food which is in his possession. And upon the presentation of such drug or article of food to the proper officer of the food division by a responsible person, with a request from such person for an official analysis of the same, the chief of such division shall make, or cause to be made, such analysis of the drug or article of food so presented, under rules and regulations to be prescribed by the Secretary of Agriculture.

SEC. 8. That whoever refuses to comply, upon demand, with the requirements of Sec. 8 of this act, shall be guilty of misdemeanor, and, upon conviction, shall be fined not exceeding \$100 nor less than \$10, or imprisoned not exceeding one hundred, nor less than thirty days, or both. And any person found guilty of manufacturing, offering for sale, or selling an adulterated article of food or drug under the provisions of this act, shall be adjudged to pay, in addition to the penalties heretofore provided, for all the necessary costs and expenses incurred in inspecting and analyzing such adulterated articles of which said person may have been found guilty of manufacturing, selling, or offering for sale.

SEC. 9. That in prosecutions for violations of this act proof of the act done shall be held to imply knowledge and intent on the part of the accused, unless such knowledge and intent shall be disproved on the trial.

SEC. 10. That this act shall not be construed to interfere with commerce wholly internally in any State, nor with the exercise of their police powers by the several States.

Concerning this Bill, and the wholesale adulteration everywhere to be found, the *Homestead* gives this very vigorous article on adulteration and adulterators, which will be read with interest at this time :

"If an angel were to swing open the pearly gates and make a tour of the worlds for the purpose of studying, as an observant and conscientious traveler, the moral conditions prevailing outside of the Blest Abodes, and would visit this planet in his tour of the universe, and spend a short time in the marts of trade and commerce, he would, we think, be disposed to scrutinize very closely, on his return, the application of merchants in general for admission to the Haven of Eternal Rest. While his clear perception of the principles of rectitude would doubtless recognize among them many of the very salt of the earth, and many others who, though meaning well and intentionally honest, were the victims of a bad system, he would be compelled to say in general: 'Your appearance is all rule, and your speech fair, but the late will of this establishment is to regard with suspicion any business man who comes from a world whose merchants have the reputation of being adulterators for the sake of filthy lucre, of everything that is used as food, from the milk that nourishes the motherless babe, to the last cordial that moistens the parched lips of the expiring patriarch.'

"We can imagine this supposed visitant examining the sugar, the coffee, the tea, the flour, the butter, the wine, and with some hesitation, and impelled only by a sense of duty, the whisky, to find that the adulterator has done his work in all. He would next investigate the clothing of earth's children to find shoddy everywhere, and the cheap and worthless passing for the valuable. Even the fertilizers which the farmer spreads on his fields would bear the touch of the defilement of the adulterator.

But we think his disgust would reach an unusual height on finding that even the grease of the despised hog had not escaped the pollution of the adulterator—that no creature is so lowly or so filthy but that filthier hands will adulterate its products with something cheaper and nastier, and palm off the deception on a non-suspecting public, provided only and always that by deceiving the public aforesaid, they can increase their own gains.

"If, disgusted and grieved with this revelation of systematic and open adulteration, he should read in the telegraphic dispatches that at the National Capitol a Bill had been introduced not to prohibit this systematic adulteration of food, but to compel the adulterators to brand it with its own proper name and ingredients, he would betake himself to Washington and hover as an unseen presence around the committee of agriculture—he would learn some things that might well make him wonder whether honesty was, after all, anything but an intangible, poetic sentiment instead of a guide to human conduct.

"We can imagine the mental replies which our supposed visitant would make to the sophistries of this gang of adulterators. When it is urged that the product was pure and healthful he would say: 'Why not pass under its own name?' When it is urged that it is actually better than pure lard, he would think: 'Why, then, should this superior article, this vegetable oil distilled in the alembic of nature from the beams of a Southern sun go sneaking around the world bearing the brand of the swine?' When it is urged that this protest against congressional action is a great philanthropic movement to give the black man a chance to prosper by furnishing a market for the refuse of his cotton crop, he would say: 'What a miserable pack of hypocrites is this that dare pollute with their unclean presence the temple of liberty!' And then thinking of the million farmers over the prairies of the West who are yearly robbed by this unclean horde of adulterators, and of the millions of laborers in America and Europe who are deceived and imposed upon by the fraud of adulterated lard, he would scrutinize the committee, visit the House and Senate, and gaze into the inner souls of the members, and ask himself: 'How many of these men will be true to their constituents, to the men who have given them homes, and

satisfied them with bread, and will vote for the Conger lard bill? How many of them, when this measure comes up for passage, will vote for delay or postponement, or to recommit, or offer other dilatory motions or amendments, and how many of them will truly and honestly vote for the interests of the men who sent them here? How many of them will skulk and dodge, or do nothing, and then go home and lament that under the circumstances it was impossible to pass a Bill to brand with its true name a commodity that masquerades under a false name on the shelves of every grocer, and the table of every citizen?'

"We are not gifted with angelic vision, and we do not know how many cowards there are in Congress, or how many members have 'grease' in, and not on their hands. But this we do know, that a member of Congress that has not the sagacity to see through the sophistry of his gang of lobbyists against the Conger pure lard Bill, or has not the manliness to stand by and pass it, should never, while his head is hot, have the opportunity to betray the people's trust again. Let the weakness of the 'Simple Simon' be laid bare, and the mask stripped off the hypocrite. It is no time now to send innocent babes to do men's work, nor allow time-serving hypocrites to connive at the robbery perpetrated on an industrious and long suffering people. When Western congressmen come home to be judged by their constituents at the November election, let there be no smell of cotton-seed oil on their hands. The negro must not put his foot in the food on the white man's table. Adulteration must bear his own shame."

Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may safely introduce any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and as interesting as a story. Price, \$1.00.

Clubs of 5 New Subscriptions for \$4.00, to any addresses. Ten for \$7.50, if all are sent at one time.

California Honey Crop.—From the *Pacific Rural Press* we copy the following about the honey crop of San Diego county, California:

The first carload of the season's honey crop, says the *San Diego Union*, pulled out June 8 for Boston, taking the superior extracted honey for which San Diego county is famous. As this is one of the even-numbered years, a large yield is anticipated, and although brush fires have interfered somewhat, it is expected that the yield will be nearly 500,000 pounds greater than in 1889.

A honey dealer who has carefully watched the industry, in which he was actively engaged for 20 years previous, asserts that the county's crop last year was about 1,000,000 pounds, although a honey buying firm at San Francisco has stated it to be but 200,000 pounds. In contradiction of this, he names one producer alone who supplied the market with 300,000 pounds, and with what he knows of the other aparies, is satisfied that 1,000,000 pounds is not an over-estimate.

The light rainfalls in 1877, 1879, and 1885 caused a total failure of the honey crop. The best years were 1874, 1876, 1878, 1880 and 1884, when some 3,000,000 pounds were produced—the county's largest crop. Then 1886 and 1888 were good years, and 1890 is expected to make a record. The bee-ranches of the county extend pretty well over the back country, including the San Jacinto region, Elsinore, Temecula, Fallbrook, Encinitas, Del Mar, Pala, Poway, Bear Valley, Escondido, Bernardo, Santa Ysabel, Ballena, Nuevo, Foster's Lakeside, San Vicente, Campo, Jamul, Jamacha, Sweetwater, etc.

The wholesale price now ranges from 7 to 12 cents a pound for comb honey, and from 4 to 6 cents for extracted, which is a little under the prices of 1889.

Help in the Apiary.—Mr. C. H. Dibbern, of Milan, Ills., gives the following in the *Western Plowman*, as his experience in hiring help for the apiary:

I have often heard bee-men say that they would like to keep more bees, or to start out-aparies if they could but get reliable help. They seem to take for granted that such help cannot be secured. How do they know this? Have they ever tried to secure such help, by a little advertising, as we have? When we decided to start our Mill Creek apiary, we needed more help, and put a little notice in the "want" column of one of our leading bee-papers, and that brought us over one hundred enquiries. These we "sifted" until we had about a dozen of the apparently most desirable applicants, and to these we put further questions as to ability, sobriety, skill, etc., and again sifted out one-half. When we got down to six, there seemed to be little choice, and we selected the two that appeared to be the most desirable. In due time the boys came, and we soon found that we had made a mistake as to one of them. For a few days he worked well enough, but we found he was a high flyer. He could talk of nothing but base-ball, croquet, camping out, and enjoying himself generally. Well, just four days of work finished him, when he concluded to return to his father's house, where we presume the fatted calf was killed in honor of the event in due time. Well, we at once wrote to one of the others, and now have two as good helpers as one could wish. I have no doubt had I wanted a dozen helpers I could have had them all out of those who applied to me, and got all good and deserving young men.

QUERIES & REPLIES.

Melting or Saving Combs—Moth-Worms and Wax.

Written for the American Bee Journal

QUERY 717.—1. What is best to do with combs in Langstroth frames that are not wired—melt them into wax, or save for use? 2. Will moth-worms injure wax?—Ia.

1. Save them for use. 2. Yes.—J. P. H. BROWN.

1. We do not understand the question. 2. Not if melted.—DADANT & SON.

1. Save them. 2. Not after it is rendered.—EUGENE SECOR.

1. Save them, of course. 2. Not in the cake form.—G. M. DOOLITTLE.

1. Save them for use, if good. 2. No.—MRS. L. HARRISON.

1. If good, save them for use. 2. In combs, yes; in bulk, no.—M. MAHIN.

1. If nice, straight combs, keep them for use, by all means. 2. No.—A. J. COOK.

1. Save the combs, if not too old and in fair condition. 2. No, if entirely free from pollen.—C. H. DIBBERN.

1. If they are good, do not melt them. 2. They do not injure wax in the cake material.—R. L. TAYLOR.

1. I would use them, if the frames were well filled, and in good condition otherwise. 2. No.—J. M. HAMBAUGH.

1. Why, use them of course, if you have any use for them. 2. Very seldom, but they will occasionally; I have had them do it.—A. B. MASON.

1. If in good condition, save and use. They are as good as money in the bank. 2. If the wax contains much pollen the worms will work in it; yet the damage will be small.—H. D. CUTTING.

1. Transfer them into the "Nonpariel" brood-frames, or some other brood-frame that does not require to be wired. 2. Moths sometimes injure foundation.—G. L. TINKER.

1. If the combs are all right and straight in the frames, and mostly all worker-cells use them in the brood-chamber. If not, melt them up into wax, and have them made into foundation. 2. Yes.—J. E. POND.

1. Save them, if they are good worker-comb. 2. I suppose you mean wax that has been melted into cakes. I never knew such to be hurt by moth-worms. As a very rare thing, I have known foundation to be so hurt.—C. C. MILLER.

1. I use them, of course, for all purposes for which good combs are used in the apiary. I have over 1,000 of them that have no wire in them, and have several hundred that are wired. I prefer combs without wire. After a few sets of brood have been reared in them, they are strong enough for any use. 2. The moth-worms never injure my wax after it has been "rendered" and made comparatively pure.—G. W. DEMAREE.

1. Good combs in Langstroth frames are all right without any wires. The use of wires is mainly to hold the foundation straight while comb is being built. 2. No, practically they will not. Moth-worms cannot live on clear wax. They must have some pollen.—JAMES HEDDON.

1. If the owner thinks he will have no further use for them, let him melt the combs and make kindlings of the frames. Gather up the fragments, and let nothing be lost. If the combs are good, and are needed for some future use, hang them about half an inch apart in boxes, and

encourage spiders to live among them. Combs may be kept indefinitely with spiders as protectors against moths. 2. Moth-worms do little or no damage to wax.—J. M. SHUCK.

The questions are both indefinite, and very unsatisfactory. 1. The first question does not state whether the combs are good, straight worker-combs or not. If they are, by all means save them for future use. If not, melt them into wax. But care must be taken to protect them from the ravages of the moth-worms, by fumigating them with sulphur. 2. Does the questioner refer to wax that has been rendered, comb foundation, or common brood-combs? Wax that has been rendered or made into comb foundation contains no pollen, and moth-worms cannot subsist on such. If by "wax" the questioner means brood-combs—of course moth-worms will injure them, for they contain pollen, etc., to invite the moths, unless they are fumigated with sulphur and otherwise protected.—THE EDITOR

fresh nectar from the flora, and will gather and store it in the combs, and entirely ignore all the proffered "food" you place before them.—THE EDITOR.

The Premiums offered in the Honey and Apiary Department at the Detroit Exposition, are as follows:

Exhibitors will not be allowed to remove honey from their exhibit during the Fair, but may sell from a reserved supply, for which no charge will be made.

Exhibitors who sell honey, must enclose it securely in paper or cartons.

Honey exhibited or sold must be this season's crop, and all honey must be the produce of the exhibitor.

Exhibits competing for a single premium cannot be included in a display.

Colonies of bees must be exhibited so as to be readily seen on at least two sides.

A breach of these rules will forfeit all premiums that may be awarded, and the right to exhibit the following year.

In judging bees, purity of race shall constitute the competing points.

CLASS 58.

790—Most attractive display of comb honey—\$35.00; \$20.00; \$10.00.

791—Specimen of comb honey, not less than 20 pounds, quality and manner of putting up for market to be considered—\$10.00; \$5.00.

792—Most attractive display of extracted honey—\$35.00; \$20.00; \$10.00.

793—Specimen of extracted honey, not less than 20 pounds, quality and manner of putting up for market to be considered—\$10.00; \$5.00.

794—Display of comb honey by a lady—\$20.00; \$10.00.

795—Display of extracted honey by a lady—\$20.00; \$10.00.

796—Most attractive display of beeswax—\$20.00; \$10.00.

797—Specimen of beeswax, not less than 10 pounds, soft, bright yellow wax to be given the preference—\$6.00; \$3.00.

798—Single comb nucleus Italian bees—\$10.00; \$5.00.

799—Single comb nucleus black bees—\$10.00; \$5.00.

800—Single comb nucleus Syrian bees—\$10.00; \$5.00.

801—Single comb nucleus Carniolan bees—\$10.00; \$5.00.

SWEEPSTAKES ON BEES.

802—Display in single-comb nuclei, of the greatest variety of the different races of bees—\$10.00; \$5.00.

803—Assortment of honey-candies, quality to govern—\$6.00; \$4.00.

804—Assortment of fruits preserved in honey, quality to govern—\$6.00; \$4.00.

805—Display of pastry made with honey—\$6.00; \$4.00.

806—Honey vinegar, not less than one gallon, shown in glass—\$6.00; \$3.00.

807—Specimen of comb foundation for use in the brood-chamber—\$6.00; \$3.00.

808—Specimen of comb foundation for use in section-boxes—\$6.00; \$3.00.

809—Comb foundation, for use in the brood-chamber, made on the grounds—\$20.00; \$10.00.

810—Comb foundation, for use in section-boxes, made on the grounds—\$20.00; \$10.00.

SWEEPSTAKES.

811—The largest, best, most interesting, attractive and instructive exhibition in this department, all things considered—\$35.00; \$20.00; \$10.00.

Competent judges will carefully examine and pass upon any new and meritorious improvement or invention, and make such honorary rewards as they may deem just.

Feeding Swarms in a Honey-Flow to Forward Storing.

Written for the American Bee Journal

QUERY 718.—Does it pay when full sheets of comb foundation are to be used, to feed from 3 to 5 pounds at night for a few nights, to new swarms being hived during the honey-flow, to assist in forwarding them to surplus storing of honey?—F. H. W.

No.—M. MAHIN.

No.—JAMES HEDDON.

No.—A. B. MASON.

No.—DADANT & SON.

I doubt it.—C. C. MILLER.

Not with me.—G. M. DOOLITTLE.

No, certainly not.—R. L. TAYLOR.

I do not think that it pays.—J. M. SHUCK.

No, never feed during a honey-flow.—MRS. L. HARRISON.

I think not, but I have never tried it.—C. H. DIBBERN.

No. Never feed when bees are gathering.—A. J. COOK.

No. I would consider it time and material wasted.—H. D. CUTTING.

I am not sure, but I think that it would not pay. Try and report.—J. M. HAMBAUGH.

It is useless to feed when the honey-flow is abundant. It will pay to feed if the flow is very scant.—J. P. H. BROWN.

I think not, though I have never tried it. Besides, I do not think that full sheets of foundation should be used in hiving swarms. It is the associate evil of wiring brood-frames—neither pays.—G. L. TINKER.

It does not, if the bees are gathering nectar from the fields. It is far better to put a frame of comb filled with honey in the outer side of the hive, with cappings broken.—J. E. POND.

I should not do it. I believe in making bees self-supporting. I doubt if it pays to stimulate in that way—in fact, I see no need of it "during the honey-flow."—EUGENE SECOR.

No, there is usually plenty of honey coming in to stimulate comb-building at swarming time in my locality (Kentucky). If, however, a few days of rainy weather succeed the casting of swarms, it will pay to feed, if you can get the bees to take feed at such a time. My bees will not touch honey when exposed right under their noses during a good honey-flow.—G. W. DEMAREE.

When honey can be obtained from the flowers it is useless to try to "feed" the bees in any other way. They prefer the

CORRESPONDENCE.

BROOD-COMBS.

Objections to the Wide Spacing of Brood-Combs.

Written for the *American Bee Journal*

BY Z. T. HAWK.

I have watched with great interest for the replies to Dr. Miller's articles on pages 214 and 365, relative to the proper spacing of brood-frames. If the Doctor holds himself in readiness to be convinced by the reports of the box-hive men, I have no doubt he will adopt the $1\frac{1}{2}$ -inch spacing. The bees evidently plan for a large amount of store-room above the brood, and as a consequence the combs in box-hives and hollow trees will usually be found to average $1\frac{1}{2}$ inches from center to center. Thick combs above, necessitate wide spaces between brood-combs below, and I have no doubt that in a state of nature this is the best possible arrangement for safe wintering. But when bees are wintered in the cellar or in chaff hives, I am of the opinion that this matter of close or wide spacing cuts very insignificant figure.

I am fully satisfied that wide spacing is "nature's way," and I am just as fully satisfied that I cannot obtain the best results in comb-honey production by following it.

Three years ago, when I adopted the Van Deusen metal corner for brood-frames, I adopted the $1\frac{1}{2}$ -inch spacing with it, for the irons were not then made any other width; but the stern logic of facts has compelled me to go to the expense and vexation of changing to a closer spacing. Now let us see why:

Since brood-comb is only about $\frac{1}{4}$ of an inch thick, the $1\frac{1}{2}$ -inch spacing permits a considerable thickening of the upper part of the comb for storage purposes. If the whole upper part of every comb was equally thickened, no great harm would be done, but such is not the case. All conceivable varieties of thickness and thinness occur, the undulations of surface on each comb conforming to those adjacent combs, rendering it, in many cases, impossible to change the relative position of combs in the hive. Such combs will not fit anywhere, only where they were built, unless they are shaved off, and who wants to handle frames under such conditions?

The next difficulty with the wide spacing is a little more serious, for it affects the brood-rearing capacity of the comb. Every bee-keeper knows that worker-brood is seldom if ever

reared in cells more than seven-sixteenths of an inch deep, and it is evident that the greater the area of thickened comb, the smaller the brood area will be. Colonies that have a tendency to store honey in the brood-chamber will thicken an undue proportion of their combs, thus restricting the queen to the lower part of the central combs. It is useless to argue that the bees will cut these cells down when needed again for brood—they will not do it, as I have learned from sad experience. There are many combs in my hives that by improper reversing were made thick at both top and bottom. In the center of these combs is an oval area of brood-comb that comprises probably one-third of the entire area of the comb. This is the second season they have been in that condition, and I cannot determine that the bees have cut down a single cell for the purpose of brood-rearing.

A third objection to the wide spacing is, that so long as the bees are amply provided with storage comb in the brood-chamber, they are slow to enter the sections. The reasons are obvious. The limited brood area has reduced their numbers, and an ample supply of honey in the brood-chamber has removed all anxiety to provide further for the future.

At my earnest solicitation, the width of the Van Deusen metal corner was reduced to one and eleven thirty-second inches, and hereafter all my brood-combs will be spaced that distance from center to center. Whether that is just the right distance or not, I do not pretend to say, but I know from previous experience that it suits me much better than the wide spacing.

Denison, Iowa.

BURR-COMBS.

Thick Top-Bars, Honey-Boards, Brace-Combs, etc.

Read at the *Ohio State Convention*

BY ERNEST R. ROOT.

Some years ago, at a convention of the North American Bee-Keepers' Society held in Detroit, Mich., Mr. J. B. Hall, of Woodstock, Ont., exhibited some frames having top-bars plump one inch square. Although these frames had been in use several years in strong colonies, the remarkable fact was, that they never had had any burr-combs built over them. But little seems to have been thought of the matter at the time, though it is pretty evident that a good many went home and experimented.

In an essay read at the last meeting of the Northwestern Bee-Keepers' Society, held in Chicago, Dr. Miller made

the statement that the ordinary slatted honey-board, which was supposed to be proof against burr-combs in the upper bee-space, had, during the past season, failed to entirely prevent the same. He further stated that it was considerable labor to remove the honey-board, to say nothing of the trouble of removing the brace-combs on the bottom of the honey-board, and removing the same from the top of the brood-frames. The Doctor then alluded to the fact of J. B. Hall's thick top-bars preventing brace-combs, and then asked the question if that might not be the most feasible method of obviating brace-combs altogether, if not dispensing with the honey-board.

At the time, little was thought of the matter; at any rate it seemed to be absolutely preposterous that the honey-board so generally in use among bee-keepers might be dispensed with. A similar article was sent to *Gleanings*, and at the time we called for facts. You will remember that a score or more of testimonies have been printed, all or nearly all, testifying to the fact that the thick top-bars—that is, bars an inch wide or a trifle over, $\frac{1}{4}$ -inch thick, or a trifle less, not much, and spaced five-sixteenths of an inch apart, invariably prevent brace-combs.

These facts are substantiated by a large number of other testimonies, which, for lack of space, we were unable to publish. To prevent brace-combs without a honey-board, three requisites are important: Extra width, extra thickness, and a reduction of space between the bars. Top-bars $\frac{1}{2}$ -inch square, but spaced $\frac{1}{2}$ inch apart, will not prevent brace-combs, although they will largely discourage them. The same may be said of top-bars $1\frac{1}{2}$ inches wide, but only $\frac{1}{4}$ inch thick. It has been shown pretty conclusively, that the bars should be regulated in width, so that a certain number of frames in a hive will space five-sixteenths or $\frac{1}{2}$ of an inch apart.

Now, then, if thick top-bars will accomplish the results claimed, it would seem that every bee-keeper, after testing them for himself, on a small scale, might well feel that he could afford to make the change. Let us consider some of the important advantages that would result from their use:

We will suppose that Brown is a bee-keeper running for extracted honey. He does not use honey-boards. When he goes to one of his hives, preparatory to extracting the upper story, he proceeds to lift out the frames. About every other one will lift the brood-frame below it, on account of the burr-comb attachments. The frame sticks, but Brown resolutely pulls until it drops down with a jar on the lower

rabbets. The bees are cross, and sting, but there is no help for it. If he had thick top-bars it would obviate this trouble. Yes, he could obviate it with a honey-board; but the honey-board at the close of the season will be stuck down to the brood-frames; and when he goes to remove it in the fall, those same brood-frames, if they hang on tin rabbets, will come up with the honey-board, and down they will go with a bang.

Every spring, Jones, who uses the narrow and thin top-bars, is obliged to clip off the brace-combs. Bees build them up so high that he cannot adjust the cover unless he does, without killing the bees. Aside from that, he considers it a waste of time for bees to deposit wax above, and a waste of time on his own part in removing them. He thinks that if top-bars will obviate his trouble, he will use them at once.

Two objections have been urged against heavy bars. The first is, that they will cost more. This is a mistake. They can be sold without comb-guides at the same price as the old frames. The second objection is made, that they remove the brood-nest too far away from the surplus apartment. This, likewise, has been stated to be a mistake. Two prominent bee-keepers declare that they have used thin and thick top-bars, and that the bees entered the supers just as readily over the heavy bars as they did over the thin ones.

Perhaps there has been another objection urged: One bee-keeper says, that honey-boards, with him, have prevented burr-combs, and that he does not care for anything better. Ah, the honey-boards do not do it. The lower bee-space is always filled, while the upper one is left intact. With heavy top-bars we have only one bee-space and *no burr-combs*.

Now, then, you have the whole facts before you, so far as I know them. As I have urged in *Gleanings*, I would urge now: Do not break your honey-boards into kindling wood yet. Neither would I consider it wise to try more than a few heavy bars this season. Your own experience will determine for you best whether you can with profit rip off, as it were, the old $\frac{1}{2}$ -inch top-bars, $\frac{1}{2}$ -inch thick, and substitute in their places a heavier one.

I may say, however, that the testimony is from such reliable bee-keepers that I can scarcely see how the heavy bars can fail to produce the results claimed for them. Please understand that I have had no experience with them myself, and I have attempted to give you only a condensed summary of several scores of letters that have passed under my eyes.

Medina, Ohio.

EATING HONEY.

Getting Everybody to Use Honey —Bee-Keepers' Union.

Written for the *American Bee Journal*
BY J. W. TEFFT.

Children are not actually crying for honey, but there are hundreds of thousands of uncultivated palates in this country that only need the opportunity to try it, to like it. No one knows what he likes until he tries it; and how can the average citizen know whether or not he likes honey, when it is a fact that he never had a real good mouthful of honey?

Now, why cannot the honey-producers of this country make a joint and honest endeavor not only to put a fine article on the *home* market, but in some manner *see* that it reaches the consumer at something less than twice its cost of production?

UPWARD AND DOWNWARD VENTILATION

On page 10, of the *AMERICAN BEE JOURNAL* for 1889, is an article by one of our bee-masters, who closes it by saying that upward ventilation is very desirable. So I always thought until about six years ago, when I tested downward ventilation, and found that the condensed moisture would pass away into the packing under the bottom edge of the division-boards, and no ice would form on the combs.

I was of the same opinion also that the ice melts and dilutes the honey, which causes bee-diarrhea. This also I discovered to be one reason, until I tested the idea of placing a coarse piece of burlap above the bees, and above that several thicknesses of newspaper, and over that 6 to 12 inches of forest leaves. Since that time there is no moisture at all on the combs, as the paper absorbs the moisture as fast as formed. This is both upward and downward moisture-absorbing ventilation.

My opinion is, that bee-diarrhea is not caused by the bees eating diluted or thin honey, but by eating honey that has become contaminated by fetid air and no downward ventilation—the same as a human being would have the disease, if he lived and ate in a room near the upper ceiling, and not ventilated at the base, which causes the air to become fetid.

HE WANTED THE UNION'S HELP.

It is usually a pleasure to me to render one a service, even in cases where I am personally disinterested. But when such a person as the one who called at my house the other day comes along, it makes me feel like tacking a sign on the door, saying, "Ask no favors."

The fellow has a large apiary and a farm worth about \$20,000, admirably located for a manufacturing site. He wanted me to intercede for him to have the Bee-Keepers' Union help to secure aid in a troublesome lawsuit about his bees bothering his neighbor. He had kept posted as to the work of the Bee-keepers' Union, and was greatly pleased with the methods of promoting the interests which the Union had adopted. He knew that the Union could do him a great deal of good, and was anxious to secure the aid from the Bee-Keepers' Union.

I told him that it would be a pleasure to present his grievances to the Union, and asked him if he was one of its members. He replied in the negative, when I suggested that in view of the fact that the expenses of the Union were somewhat heavy, it would be a very proper thing for him to join, and thus aid in the carrying on of their work, at least to the extent of \$1.00 per year. You wouldn't believe it, but this fellow who was soliciting a \$500 favor at the hands of the Union, positively refused to contribute one cent toward the good work!

I have no fault to find with those who take no stock in the Union, and then ask no favors, but when such a shrunken-souled fellow like that described comes along, it makes me feel misanthropic for hours afterwards.

Collamer, N. Y.

CARNIOLANS.

My Experience with these Bees —The Honey Crop.

Written for the *American Bee Journal*
BY S. A. SHUCK.

In May, 1889, I purchased a select tested Carniolan queen, intending, if these bees proved to be as represented, to Carniolanize my entire apiary. From this queen I bred 35 queens during June, July, and August, 1889. The old queen swarmed twice, and was superseded late in the fall.

Every one of the young queens mated with Italian stock—at least their progeny, show more or less yellow bands. The only points of superiority that I could see in pure Carniolans over the common black bees, was their gentleness, and the disposition to stick to their combs while being handled. They were equal to the worst hybrid I ever saw in mutilating the cappings of their honey.

The progeny of the young queens are the most persistent thieves I ever owned. During the past winter and spring I lost about 30 colonies, and commenced the season of 1890 with

125 colonies. Twenty-five of these had Carniolan queens, and 100 with Italian queens, about 20 per cent. of which were mated, mostly with Carniolan stock.

Up to date, I have for the entire apiary, 60 per cent. of swarms, while for the 25 Carniolans I have nearly 90 per cent. of swarms, which makes less than 50 per cent. for the Italians.

I have extracted once from several colonies run for extracted honey, and the greatest amount taken from pure Italians is 43 pounds; the greatest amount taken from mated Italian stock, is 42 pounds; and the most taken from Carniolans, is 30 pounds. The least taken from pure Italians is 21 pounds, and the least from Carniolans, is 15 pounds.

To illustrate further: My little boy, 12 years old, has 10 colonies, part are worked for extracted, and part for comb honey. On July 1, I extracted from 4 colonies—all that were ready—3 Italians and 1 Carniolan; the Carniolan had swarmed a few days previous, and neither of the Italians have swarmed yet. I took 106 pounds from the 4 hives, and only 15 pounds of this came from the Carniolan; while one of the Italian colonies gave 43 pounds.

The only case of sections ready to be taken off is on a hive containing pure Italians. The first swarm for the season was Carniolans, the last to date was Carniolans, and that, too, from the same queen that cast the first swarm. She was hived on one comb and nine empty frames, and one case of sections, on June 8. The case of sections is about half full.

I think now that I shall be over 1,000 pounds of honey short for the season, by having Carniolans instead of Italians. Perhaps "a hint, etc., is sufficient.

Liverpool, Ills., July 2, 1890.

CALIFORNIA.

Do Bees Make Honey?—The Raisin Industry, etc.

Written for the *American Bee Journal*

BY D. B. WIER.

For once our editor is wrong. He has not referred to Webster; when he does do this he will see that there is no sophistry used by any one who has written on this subject, who holds that bees do make honey. As well might he hold that a man cannot make lemonade, the miller flour, the farmer cider, etc.

To *make*, means to contrive, to form, to mold, press, drive, mix, to change in form, etc. For instance, if we *make* a sugar syrup, and then mix

with it one thousandth of its bulk of formic acid, it is no longer sugar syrup, for we have *made* or changed it by the addition. It may not be honey technically speaking, but it is no longer simply sugar syrup. Now, if we add to the mixture a certain amount of citric acid, and let it stand sometime, we may have not *made* honey, but we have *made* nearly exactly its equivalent.

Besides, we have the most ancient and respectable authority on chemical and scientific matters in the world dead against him. I refer to Mother Goose's melodies, page—, where we find—

"God made man,
And man made money;
God made bees,
And bees made honey."

This should settle the question permanently. For M. G. does not say that bees are *the only* parties who can make honey, so leaving the inference to be drawn that any one else may make honey who can bring the proper ingredients together and then mix or combine them. If Brother Newman (for I to am an editor on "the best country weekly in California," hence *brother*) will feed a new, clean swarm of bees, in confinement, on pure sugar syrup *made* (see how these *makes* and *mades* come in) from the best Dutch cut loaf, and after it has remained in their possession one month in their combs, if he can change it back into crystallizable sugar again, we will all give it up that bees do not make honey.

Yet this stored honey may not taste like that which the bees gather from linden, sweet clover, white clover, sage brush, tar weed, or bug-juice, but after the bees have manipulated it, it is no longer sugar, or sugar syrup; it is to all intents and purposes honey—not white clover, basswood, tar weed, bug-juice, etc., honey, but simply pure honey, *i. e.*, sugar honey, instead of tar weed, etc., honey.

If we were going to run this thing into the niceties and technicalities, our editor would find himself landed into a very close, small corner, for a committee of experts would first have to decide what is honey. The natural sweets gathered by bees are so varied in all their characteristics, that when the problem was solved, what is honey, every other compound of sweets gathered by bees from other sources that was not essentially like what was declared to be honey, would have to be ruled out? Honey gathered by the bees from hoarfrost and incense cedar is offensive to the taste of some, yet it is certainly honey. Honey gathered from the juice of some grapes would be very poor, but that from our royal Muscats—when fully ripe, are well

nigh as sweet and pure flavored as any honey—might be very good!

My former article on this subject has brought me scores of inquiries again from all over the country. Since I have been in California I have tried carefully to write nothing but the exact truth on all subjects. In my first letter I recommended *parts* of this county highly for apiaries. I meant every word I wrote in that article. I did not recommend this little city of Petaluma for that purpose. Why? Simply because in summer there is too much wind, and often cool wind. This is exceedingly grateful to us usually, but a little rough on a bee with a full cargo on board, and as these summer winds are constantly from the same direction, and strong enough to prevent a loaded bee reaching home, I should not call it a good place for apiaries. Yet in the same block in which I reside, are five hives, from which the owner has taken ten pounds a week, for a long time this spring, of splendid honey, yet there are thousands of locations in the county without any drawbacks whatever. As with fruits, so with bees. If we are going to make a business of either, we should in the start select the best location, all things considered.

North of here in Mendocino county one might find as choice locations as there are in the world for bees and honey, and within six miles of the railroad; yet it might cost him \$5,000 to get a wagon road out—too much mountain.

Lake county, one of the most delightful and finest counties of the State, "The Switzerland of America," is very nearly a paradise for soil, products, health and comfort. Yet with no railroad, and 25 to 40 miles of mountain road to get into or out of it, it is a poor place to grow corn in for 20 cents a bushel, or honey at 5 cents a pound, and then haul it out.

I said the *foot-hills* of Kern county are good for bees, and meant it. Yet on the floor of the valley right around Bakersfield, apiaries might do royally well. I did not say so, for I was sure the *foot-hills* were the better. Yet at Bakersfield, with its thousands of acres of alfalfa in bloom the year around, and the whole ground carpeted in winter and spring with the sweet alfalfa—also a grand grazing plant constantly in bloom, and the bloom of the millions of fruit trees and vines, apiaries might find a poorer place. But there is a constant summer wind up the valley, even stronger than here, and it is a hot wind instead of cool, that might worry the bees somewhat.

As for land prices in this State, the question is like answering the one, "How big is a piece of chalk?" all de-

pends on what can be grown on it, the value of the crop, fertility, and ease of working the soil; nearness to market, health, comfort, and many other points, and especially the improvements, which are houses, barns, fences, fruit-trees, and vines in bearing. In many places these prices seem truly fictitious—they are in part; as an example, in one part of this county land alone, without any improvements—land that it will cost \$40 to \$50 an acre to clear up for any crop, is held, and being sold at from \$150 to \$250 an acre; while right here near Petaluma, in just as good and healthy climate, just as good land that will produce crops which will sell for as much per acre—land ready for plow, trees and vines, fenced, with houses and barns on it, 16 miles nearer market, with both railroad and water routes, can be bought for \$60 to \$120 per acre, within two to ten miles from town, and further back at from \$10 to \$50.

Why this great difference? I think it would take a Philadelphia lawyer to find out. It is simply "wind boom." There is no legitimate reason for any such foolishness, and the same is true of points all over the State.

Thus, again, Kern valley is in every point and particular a better raisin county than Fresno and vicinity; yet land can be had in Kern for one-fourth to one-eighth of what it can be bought for the same distance from Fresno.

The great syndicate I mentioned in my last, are offering the choicest lands in the great Kern valley, undoubtedly the best raisin *climate* in the world, and equally good for nearly every other known fruit, in 20-acre tracts on long time, or larger tracts to *actual* settlers, who will improve, at \$45 an acre—less than adjoining land can be bought for cash.

Twenty acres, strange as it may seem, is all the land a large family wants, needs, or has any need of for legitimate fruit-growing. More would simply be a burden. Then the cost of the raisin or other fruit farm in Kern, is \$900 on any reasonable terms; the syndicate even going so far as to promise and contract, that if the colonist will do his part, he will be allowed to pay for his home from his first crops, and not allowed to starve in the meantime. That is all there is of it.

California, each and every portion of it that one could with reason call habitable, is about the best place on this earth to live in, have comfort in, and to make money in. Yet I must say that no one has any business to come here without he has money—money enough at least to make a start with towards buying a home. It is no country to come to, to work out for hire, especially in the country, for

many reasons. The country home is safe—always brings nice returns, if rightly managed, and is independent. Petaluma, Calif.

[The word "make" has many definitions—one of which is "to prepare," and it is so used when we speak of "making a bed." In the article criticised, we referred to its primary definition, which is "to bring into being; to create or cause to exist"—as the Eloheim said at the Creation, "Let us make man." In that sense, bees do not make honey. Bro. Wier is in a playful mood, as will be seen by his mirthful reference to "Mother Goose's melodies."

Certainly he may *make* free with the word while trying to *make* out a case; but he must *make* sure to *make* it known that when he *makes* an example, he must *make* good sense in order to *make* a creditable defense! Or we may *make* merry over his failure to *make* an argument which would *make* any one believe that he was not *making* fun of the whole matter!

The word is so variously used that it *makes* no difference what shade of meaning is desired, he can *make* it to suit himself!

To *make* amends, let us "make the punishment fit the crime," and thus *make* an end to the whole controversy.

—ED.]

HONEY.

Some of the Abuses of Extracted Honey, and the Remedy.

Written for the *American Bee Journal*
BY W. J. CULLINAN.

It was with more than usual interest that I read the excellent article on page 445, by C. W. Dayton, on the above subject. I read the article once, then read it again, and, John Allen-like, think I shall "turn back and re-read certain parts on which I am not perfectly clear."

Extracted honey is my hobby; I prefer to produce it, prefer to eat it, prefer to see it—and if it had not been so much maligned by those outside, and so ignominiously treated by those inside of bee-keeping circles, I would prefer to sell it. But after thousands of tons of an unripe and inferior article have, through the ignorance or carelessness of would-be honey-producers, found its way into the hands of consumers,

satiating the palates of many, is it any wonder that people say, as Mr. Dayton remarks, that honey "does not taste so delicious as it used to?" or that the vendor of extracted honey, even though he have a good article, meets with so many obstacles, and finds it so difficult at times, to effect sales?

I think that Mr. D., while he cannot claim priority in this, has helped to solve the problem for those who say that they cannot sell extracted honey. Let them try Mr. D's plan of leaving it in the hives until it becomes ripe, rich, and delicious, then store in clean receptacles, bung or seal up tight, and try the sample plan of selling, and see if their sales do not surprise them.

I fully agree with Mr. D., where he says that the "custom of selling all extracted honey in small packages is belittling to the business, and casts the idea that a little of it is all that is of any use," etc., but, I would ask, what is to be done when the average grocery-keepers throughout the country—and, I am grieved to say, in cities like Quincy (31,000), and Kansas City (200,000)—will look at you as though you were trying to hang a dead weight about their necks, when you ask them to buy a barrel of honey at one time?

The plan of selling in 40° and 60 pound cans is a good one, but judging from my own experience, it takes a hero in the trade to convince the average person that he needs that much in his business. However, it is well to give such questions a sort of renovating shake occasionally, and Mr. D's article may set some of the producers of extracted honey to thinking, and tend toward the production of an article between which and the adulterated article, it will not be so hard, as I have seen it, to discriminate.

Quincy, Ills.

STANDARD.

Standard Hives, Sections, Honey-Boards, Frames, etc.

Written for the *Colorado Farmer*
BY D. R. EMERY.

The question is often asked, "Have we a standard hive?" or "Is it not desirable to have a fixed hive, leaving the way open for improvements?" It seems that the experience and experiments of the last decade, would warrant an average standard for general use, and let specialists suit their own fancies.

Some claim that a small eight-frame hive of 1,728 to 2,000 cubic inches, is large enough; that hives of this size will economize heat better, and compel more surplus storage, and cost less

lumber. Others have used hives of 3,500 to 4,000 cubic inches, that were filled with bees and honey, and did as well or better than the smaller hives. This much is believed: "The more worker-bees, the more honey can be gathered." A large family will need house-room in proportion. But a very large hive is so unwieldy to handle. As some bees are averse to carrying honey above; a broad hive with frames may do for extracted honey. As that is not the commercial style or demand, other arrangements and "fixin's" are necessary.

It appears now, that the Langstroth-Simplicity hive and frames, with the one-piece, one-pound sections, is meeting the general idea of a "standard." All the other improvements can be attached.

The next important question to be settled, is the kind and arrangement of the honey-board. Also an easy plan or device for forcing or coaxing bees to "escape" from the surplus honey, and a simple, automatic swarm-hiver. I believe there is more resting on the honey-board or second-floor device in securing surplus honey, with a minimum of labor and trouble in handling honey and bees, than anything else. It seems to me that a board floor in two pieces (divided lengthwise of the hive) is easily removed, with a bee-entrance at the front end only (opened or closed by a tin slide or other convenient appliance), is going far toward meeting a growing demand. It is not necessary to have so many openings for the bees to go above.

A slat honey-board, or one with openings at the back end, causes the bees to run over the comb and brood below. The nurse-bees are disturbed by the rushing, eager workers, and the workers are retarded by the nurses and young bees. During a good honey-flow in warm weather, the bee-escape to the outside may be left open, facilitating egress and ventilation. In a ten-frame hive you can take out for extracting one or more frames on each side of the brood-nest, or exchange with old blackened brood-comb, and always have good, fresh stores for winter.

Brother bee-keepers, give all the offered new "improvements" a fair trial, and "hold fast to that which is good;" and do not forget to report your experiences for the benefit of the fraternity.

Longmont, Colo.

"Bees and Honey" is the title of one of the very best books on bees. The present edition is largely re-written, and is fully up to the times. It is profusely illustrated.—*Farm, Field and Stockman.*

CONVENTION DIRECTORY.

1890. Time and place of meeting.

Aug. 10.—Northern Illinois, at Harlem, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.
Aug. 20.—Haldimand, at South Cayuga, Ont. E. C. Campbell, Sec., Cayuga, Ont.
Sept. 10.—Ionia County, at Ionia, Mich. H. Smith, Sec., Ionia, Mich.
Oct. 29-31.—International American, at Keokuk, Ia. C. P. Dadant, Sec., Hamilton, Ills.
Oct.—Missouri State, at Mexio, Mo. J. W. Rouse, Sec., Santa Fe, Mo.

In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

International Bee-Association.

PRESIDENT—Hon. R. L. Taylor, Lapeer, Mich.
SECRETARY—C. P. Dadant, Hamilton, Ills.

National Bee-Keepers' Union.

PRESIDENT—James Heddon, Dowagiac, Mich.
SECY. AND MANAGER—T. G. Newman, Chicago.



Unfavorable Season for Bees.

Last year was the best honey year I ever saw. I commenced the season with 26 colonies, increased them to 54, and secured 8,000 pounds of fine comb honey. This season, so far, has been unfavorable. I began with 46 colonies, that had wintered well on the summer stands, but after apple-bloom they killed off the drones. They have swarmed very little, and are tardy in going into the surplus sections.

W.M. SHIER.
Marlette, Mich., July 8, 1890.

Bees Threatened with Starvation

I have 250 colonies in four different places, and not one-pound section of honey from them yet; I have seen only one hive with any signs of white along the top-bar. Bees in this county are on the point of starvation.

G. G. BALDWIN.
Port Huron, Mich., July 8, 1890.

A Good Season for Bees.

I am happy to say that we have, at last, one good season for bees. I never knew them to do better. Good weather struck us on June 17, and still continues. When it has rained, it was in the night, and the bees have lost no time. All the conditions are just right for honey and queens.

HENRY ALLEY.
Wenham, Mass., July 7, 1890.

Poor Prospects for a Honey Crop

Our prospects are very poor for a good honey crop this summer. Clover and bass wood are just about gone, and we have very little honey yet. The brood-chamber is well filled, but only a little in the sections yet. Our only hopes are for a fall honey-flow for surplus honey. Bees are in good condition—all colonies are strong, but not inclined to swarm much. Out of 220 colonies I had only 35 swarms. Black bees are swarming a good deal, and going to the woods. I still hope to get some honey yet.

N. STAININGER.
Tipton, Iowa, July 9, 1890.

A California Flower.

Will you please tell me if the enclosed sample flower is golden-rod? If it is not, can you describe the California species, so that we may know when we find it?

MRS. P. W. MINTHORN.

Terra Cotta City, Calif.

By request, Prof. Cook replies to the foregoing questions as follows:

The plant sent is not golden-rod, nor is it at all like it. I think that any one who will examine the figure of golden-rod in the last edition of my "Bee-Keepers' Guide," will easily distinguish the plants. It is a composite, so there are many flowerets on one head. The colors are usually yellow, and the spreading shape of the flowers makes it easy to identify these, which are among the most beautiful of our American flowers.—A. J. COOK.

New Jersey Tea.

Will you kindly state, through the BEE JOURNAL, the name of the enclosed flower, and whether or not it yields nectar? It abounds here in a wild state.

R. B. SCHOFIELD, M. D.
Newark, Mo.

[Prof. C. M. Weed, to whom we submitted the above question and sample of leaf and flower, answers thus: "Apparently it is New Jersey tea, *Ceanothus Americanus L.* According to Gray, the leaves of this plant were used for tea during the Revolution." Whether it yields nectar or not, we are unable to say.—ED.]

Bee-Keeping in Louisiana.

My bees are doing very well so far; I have extracted up to 30 pounds per colony. The swarming amounted to about 50 per cent. increase. We are selling honey here at 75 cents per gallon. I will sometime send sample of my honey. It is different from Northern honey in flavor.

A. BRANDT.

St. Sophie, La., July 1, 1890.

A Queer Year for Bees, etc.

This has been a remarkably queer year for bees. The winter was mild; there was plenty of brood, but no honey in apple-bloom, so half of the bees starved during the last of May. As we had no honey the past three years, I was disgusted and discouraged, and so I fed only enough to keep the bees alive. I lost none, and so when the honey-flow did come, the bees had dwindled to mere nuclei, but it beat all for honey that I ever saw.

It always pays to have "new blood" in the apiary; I have a few queens of that kind, and they have had no better chance than the bees by their side, yet they have stored 40 pounds of honey, and some of the others have not stored a pound; so I think that it pays to give 75 cents or one dollar for a new queen. If I had fed my bees so as to have held them where they were on April 5, I could have had 1½ tons of honey, where I now have only half a ton.

My bees kid not swarm too much—I had only 12 swarms from 45 colonies, spring count. The swarms were small, and the bees around here seem determined to leave for the woods. I account for it in this way: It has been so very warm, and the farmers being so busy they did not shade the bees.

D. R. ROSEBROUGH.

Casey, Ills., July 7, 1890.

Alsike Clover for Bees.

My bees are working strong on the Alsike clover. I sowed two acres of Alsike the past spring, and I think that it is the best thing there is to plant for bees. One thing I find about Alsike is, that it will bloom nearly all summer if it is not too dry, and blooms two or three times a year, if pastured or cut at certain times. The bees in this part of the State did not winter well last winter, the diarrhea seems to be the main trouble with them. D. B. CASSADY.

Litchfield, Minn., July 7, 1890.

First Surplus from White Clover

The seasons of 1888 and 1889 were failures as to surplus honey in Southwest Missouri, though I extracted about 500 pounds from my apiary during those two years. I have about 75 colonies now in fair condition. They have stored surplus from white clover for the first time in this part of the country. It has increased tenfold since last year. The temperature has been very high here during June, but has lowered some during the last two days. The prospect is good for a crop of sumac honey.

J. J. ELMORE.
Bower's Mills, Mo., July 1, 1890.

Small Loss in Winter, etc.

My bees wintered out-of-doors as usual last winter, and I lost 2 colonies out of 24. I have had only 9 swarms to issue as yet. Bees are storing honey quite fast. My bees, for winter, have a warm, sunny exposure, and are protected from the north and west winds. I use mostly Langstroth-hives, and pack the top of the hive with pillows stuffed with dry leaves or straw, and I do not remove these until the weather is quite warm. I use 9 brood-frames, and let the colony lay in a good supply of early-gathered honey for their winter stores, before asking them to store in the sections.

R. A. WILLIAMS.
Poultney, Vt., July 4, 1890.

Honey Crop a Total Failure.

The white honey harvest here is a total failure. I do not think that I could find 100 pounds of capped honey in my apiary of 165 colonies, and have had but 9 swarms to this date. My scale hive is losing in weight every day. The weather here is extremely dry. J. V. CALDWELL.

Cambridge, Ills., July 10, 1890.

Bees Filling the Surplus Sections

The bees are just filling the surplus sections on the double-quick. My bees did their first swarming on July 2, and I decided that the best thing I could do was to send them back, and so I did with six of them. I am getting lots of honey by doing so. The white clover is plentiful, and the farmers have sowed lots of buckwheat.

M. M. BITTER.
Canoga, N. Y., July 8, 1890.

Dry and Hot Weather.

I have 29 colonies of bees, and had but one new swarm. All wintered well, and are very strong. The first part of fruit-bloom was good, and white clover followed closely, but only lasted two weeks; now there is not a bloom of any kind to be seen, that bees can gather honey from—everything being dried up here. Meadows here will burn like dead grass. Corn is suffering badly, and can hold out but a few days—

the tassels turn white the next day after it appears. The mercury has been 105 degrees in the shade for several days, and the nights are so hot that the most tired people cannot rest.

This has been our lot for the past three days, with but one shower that would lay the dust, and it begins to look as if we will have to look for some other quarters to winter, if we do not soon have a change. I made large calculations for my bees to do the work, and I to get the reward, but I will make it the other way now, as I will have to go to feeding. The bees have some honey in the sections, but they are carrying it down-stairs. I feel somewhat disappointed, as \$500 was the "pile" I had posted in my mind for this season from 29 colonies, as I got \$200 from 12 colonies last season, and not well attended, either.

E. L. KIRK.

Pulaski, Iowa, July 10, 1890.

A Short Crop of Honey.

On May 1 I placed a box-hive on spring scales, and up to June 20 the pointer raised gradually; that is, they grew lighter, then they gained 2 pounds each day until the first of July, when they came to a standstill. It rained three days, and for the last three or four days it has been so hot that they have done but very little. There has been but very little swarming, and what have come out acted strangely; they would go for the woods, or go back into the old hive. I have only two swarms out of 20 Cottage hives. There is plenty of white clover, but somehow they do not seem to get much nectar from it. The prospects here are for a short crop of honey. There is but little if any basswood in this region. What the bees will do on buckwheat and wild flowers, remains to be seen.

R. B. WHEATON.
Middlebury, Conn., July 8, 1890.

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ALFRED H. NEWMAN,
BUSINESS MANAGER.

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HONEY AND BEESWAX MARKET.

NEW YORK, July 7.—New Southern extracted is arriving freely, but the quality is poor, and prices are declining. We quote from 60@65 cents per gallon. New extracted orange blossom honey, 7@7½ cents. New extracted California white sage, 6@6½. California light amber, 5½@5½c. Beeswax, scarce and firm at 29@30c.

HILDRETH BROS. & SEGELEN,
28-30 West Broadway.

CHICAGO, June 4.—Demand continues good for strictly white clover honey, and our receipts are being taken as fast as they arrive. What little stock we have, consists of buckwheat in 1 and 2-lb. sections, which is dull and slow sale. We quote: White clover 1-lbs., 12½@13½c; buckwheat, 7@9c. Beeswax, scarce at 25@26c for bright, and 23@24c for dark. S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, June 19.—We received today the first shipment of new comb honey from Independence, Mo.—nice white 1-pound sections, put up in handsome white crates holding 12 sections each. It sells at 15@16c per pound. Extracted, white, 5@6c; dark, 5c Beeswax, 25c.

CLEMONS, CLOON & CO.,
Cor. 4th and Walnut Sts.

CHICAGO, July 8.—Market is bare of honey of all kinds, both comb and extracted. New comb will bring 13c. A little fancy has been sold at 15c. Extracted from 6@8c. Weather is warm, but there is some demand. Beeswax, 27@28c.

R. A. BURNETT, 161 S. Water St.

MILWAUKEE, June 2.—The market for honey is in a fair condition. The old stock is getting out of sight, and values are sustained on choice qualities. We quote: Choice white 1-lb. sections, 13@14c; medium 1-lbs., 11@12c; dark 1-lbs., 9@10c; 2-lbs., normal. Extracted, in barrels and half barrels, white, 7@8c; dark, 6@6½c. Beeswax, 26@30c.

A. V. BISHOP, 142 W. Water St.

DETROIT, July 8.—No new honey in the market, and no desirable old is left. It is quoted at 10@13c. Extracted, 7@8c. Beeswax, 27@28c.

M. H. HUNT, Bell Branch, Mich.

KANSAS CITY, June 13.—Market cleaned up on old comb and extracted, and new crop of comb arriving. We quote: White 1-lbs., 15c; dark, 11@12c; white 2-lbs., 12@13c; dark, 10@11c. Extracted, white, 6@7c; dark, 5c. HAMBLIN & BEARSS, 514 Walnut St.

BOSTON, July 9.—Fancy 1-lbs., 16c; 2-lbs., 15c. Extracted, 8@9c. Honey sales are very slow. We have recently received a shipment from Michigan, of very fine stock, which is an ample supply for us for the summer.

BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI, July 9.—Demand is good for the new crop of extracted and comb honey. Judging by present arrivals, there has been a good crop harvested. Extracted brings 5@8c. Comb honey, 12@15c for best white. Beeswax, in good demand at 24@26c on arrival.

C. F. MUTH & SON,
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This plant has been commended by some of the most experienced bee keepers in America, as being "a most valuable acquisition to the list of bee-forage plants." The seed may be scattered in waste places, or it may be sown in drills or hills like onion seed. We can furnish the seed, post-paid, at the following prices: Single ounce, 40 cents; 4 ounces, \$1.00; 10 ounces, \$2.00; or one pound for \$8.00.

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The Northern Illinois Bee-Keepers' Association, will hold its fall meeting at Harlem, Ills., on Aug. 19, 1890. D. A. FULLER, Sec.

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